EXPLANATION OF UNITS

Intrusive Rocks

Mesozoic

Mafic dike. Reddish-brown weathering, black basaltic dikes.

Trachyte dike. Feldspar-bearing dikes are dark gray, weather chocolate-brown. Nepheline-bearing dikes are bluish gray, weather pale brown. Associated with the Rattlesnake Mountain igneous complex.

Rocks of the Rattlesnake Mountain igneous complex

Mns — **Nepheline syenite.** Medium-grained, 15-25% pink euhedral nepheline with clusters of irregular feldspar. Microperthite is dominant feldspar.

Mnbs — **Nepheline-bearing syenite.** Medium- to fine-grained, 2-10% nepheline. Microperthite is dominant feldspar. Also in abundant dikes (not mapped) intruding ferrohastingsite syenite.

Mfhs — **Ferrohastingsite syenite.** Coarse-grained, predominantly microperthite and ferrohastingsite with lesser orthoclase and oligoclase. Sparse nepheline; no quartz. Dominant lithology in the complex.

Mchs — **Mchs -** Chilled aspect of ferrohastingsite syenite in areas marginal to granite. Fine-grained.

Mfbs — **Biotite-ferrohastingsite syenite.** Medium-grained, greater abundance of biotite than ferrohastingsite syenite, greater proportion of orthoclase and oligoclase relative to microperthite.

Mhys — **Hybrid syenite.** A mixture of ferrohastingsite syenite and older alkalic mafic rocks.

Carboniferous

Rocks of the Sebago pluton

Cg — **Two-mica granite.** Medium-grained equigranular, biotite-muscovite granite, white to pale pink, generally lacking metasedimentary inclusions. Locally pegmatitic. Demonstrably younger than biotite granite.

Cgm — **Cgm -** Migmatitic aspect around Raymond Hill.

Cbrg — **Cbrg -** biotite-riebeckite marginal facies at contact with Rattlesnake Mountain igneous complex.

Cbg — **Biotite granite.** Medium-grained biotite granite with or without accessory muscovite, locally subporphyritic. Frequently associated with or gradational into pegmatitic stringers, segregations, and dikes. Associated with metasedimentary xenoliths and septa. Fine-grained variant interpreted as marginal facies. (Inferred at western edge of quadrangle from mapping in Naples quadrangle to the west.)

Cpg — **Pegmatite.** Biotite-muscovite granite pegmatite generally free of metasedimentary inclusions and occurring as irregularly shaped bodies.

Cmgg — **Muscovite-garnet granite and migmatite.** Coarse to pegmatitic muscovite-garnet granite. Muscovite abundant; garnet inhomogeneously distributed. Tourmaline and biotite in pegmatitic zones. Leucocratic muscovite-granite aplite included within coarse-grained granite or pegmatite. Migmatite (not shown separately) - muscovite-garnet with inclusions of biotite granofels and/or pelitic schist.

EXPLANATION OF SYMBOLS

Foliation - inclined, vertical.

Joint - inclined, vertical.

Outcrops without structural data.

Symbols representing inclined planar features are annotated with dip angles.

Contact. All contacts are solid where approximately placed, dashed where inferred, dotted where concealed, and queried where uncertain.

Bedrock Geology of the Raymond Quadrangle, Maine

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SCALE 1 : 24,000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

Quadrangle Location

SOURCES OF INFORMATION

Bedrock mapping by John W. Creasy completed during the 1994 field season. Rattlesnake Mountain igneous complex mapping modified afterWhitaker, S. B., 1984, Geology of the Rattlesnake Mountain igneous complex, Raymond and Casco, Maine: B.S. honors thesis, Bates Colletge, Lewiston, Maine, 109 p.

Topographic base from U.S. Geological Survey Raymond quadrangle, scale 1:24,000 using standard U.S. Geological Survey topographic map symbols.

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